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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,130	10/21/2003	Robert J. Sageman	8200-00101	3652
26659	7590	09/30/2004	EXAMINER	
DINNIN & DUNN, P.C. 2701 CAMBRIDGE COURT, STE. 500 AUBURN HILLS, MI 48326			SAN MARTIN, EDGARDO	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/690,130	SAGEMAN, ROBERT J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Edgardo San Martin	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1)  Responsive to communication(s) filed on 21 October 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

- 4)  Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-20 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 05 February 2004 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/11/04.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations described in claims 11 and 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The disclosure is objected to because of the following informalities:
- In the Specification on page 4, line 8 reference character "4B" should read -- 5B --.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention..

3. Claims 11 and 18 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while establishes that flapper valve assembly could be electronically controlled and tunable, does not reasonably provide enablement for electronically control and tune the flapper valve. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The description on how the flapper valve is going to be electronically control and tune is vague and would not clearly enable a person with ordinary skill in the art to use the invention commensurate in scope with these claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 5 – 10, 12 – 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Itria (US 3,923,122).

With respect to claims 1 and 12, Itria teaches an exhaust system (Fig.4), the system including a muffler (Fig.4, Item 17); and a flapper finger valve (Fig.4, Item 19) assembly arranged within the muffler.

With respect to claims 2, 5 and 13, Itria teaches the limitations described in the claims (Fig.4).

With respect to claim 6, Itria inherently teaches wherein the flapper valve having a predetermined spring coefficient.

With respect to claims 7 and 14, wherein the flapper finger valve assembly having a plurality of flapper finger valves arranged around an outer surface of the tube, the flapper finger valves covering the orifices when the flapper finger valve assembly is in a closed position (Figs.4 and 5).

With respect to claims 8 and 9, Itria inherently teaches wherein the flapper valve moves in a radially outward direction when exposed to a predetermined pressure (Fig.4), and wherein the flapper finger valve is capable of being tuned to specific exhaust system characteristics.

With respect to claim 10, Itria teaches wherein the flapper valve having predetermined angled bends, thicknesses and widths (Fig.4).

With respect to claim 19, Itria teaches the limitations described in the claim (Fig.4).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itria (US 3,923,122).

With respect to claim 3, Itria teaches the limitations discussed in a previous rejection, but fail to disclose wherein the flapper finger valve assembly system having at least one flapper finger valve, the flapper finger valve having a generally C-shape.

Nevertheless, the Examiner considers that it would be an obvious matter of design choice to employ a flapper valve having a generally C-shape.

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ a flapper valve having a generally C-shape with the Itria design because the C-shape flapper valve would generally have a shape that correspond to the contour of the tube periphery, and would decrease the amount of

flapper valves that could be used by employing just one valve to cover a plurality of the orifices facilitating the assembly of the exhaust system.

With respect to claims 11 and 18, the Examiner takes Official Notice that it is well known in the art of acoustics to electronically control and tune an exhaust system depending upon the performance of the fluid source.

6. Claims 4, 15 – 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itria (US 3,923,122) in view of Okamoto (US 5,299,961).

With respect to claims 4, 15 and 20, Itria teaches the limitations discussed in a previous rejection, but fail to disclose wherein the flapper finger valve assembly having a plurality of relief backers arranged around the flapper finger valves, the backers will control a maximum distance of radial movement in an outward direction for the flapper finger valve.

On the other hand, Okamoto teaches an exhaust system comprising flapper valves (Fig.3, Item 48) and backers (Fig.3, Item 46) that control a maximum distance of radial movement in an outward direction for the flapper valve (Col.3, Lines 45 – 58).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Okamoto backers configuration with the Itria design because the backers would permit to control the distance that the flapper valves would be opened, in this manner controlling the flow coming out of the exhaust system providing a tuning effect over the system. Furthermore, the Examiner considers that it would be an obvious matter of design choice to employ a flapper valve having a generally C-shape, as discussed above.

With respect to claims 16 and 20, Okamoto teaches wherein the flapper finger valves and the relief backers are secured to an outer surface of the tube (Fig.3, Items 50 and 54).

With respect to claim 17, Itria inherently teaches wherein the flapper valves having a predetermined thickness and spring coefficient, the flapper valves will open or move radially away from the tube at predetermined exhaust pressures, as discussed above.

***Conclusion***

7. The attached hereto PTO Form 892 lists prior art made of record that the Examiner considered it pertinent to applicant's disclosure.

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín  
Patent Examiner  
Art Unit 2837  
Class 181  
September 28, 2004